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ABSTRACT OF THE DISCLOSURE

A moving object tracking apparatus for detecting and tracking one or more moving objects in an environment is provided. The moving object tracking apparatus comprises an optical system including a hyperboloidal mirror for capturing visual field information on a 360° environment, a single stationary camera for converting the captured visual field information to image information, and an information processing section for processing the image information. The information processing section detects and tracks the one or more moving objects based on the image information.